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EXAMINER

JACOB, AJITH

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/567,071	Applicant(s) MORRIS, STEPHEN	
	Examiner AJITH JACOB	Art Unit 2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-15,17-31 and 33-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-15,17-31 and 33-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, 8, 15-25 and 33-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Ashida et al. (US 2002/0091908 A1).

For claim 1, Ashida et al. teaches:

A computer implemented method for processing data for a spreadsheet system model: including the steps of: providing a spreadsheet model specification in a computer system, the spreadsheet model specification including a plurality of types of item, in respect of which entries may potentially be provided in a spreadsheet to which the spreadsheet system model relates [analytical database management with data, 0005], the types of item including: at least one first item type wherein first-item associated data is input data input into the computer system [customer data, 0005]; and at least two putative second item types wherein second-item associated data [speculation data list, 0005] can be obtained from an operation performed on stored data, associated with at least one of said first or second item types, stored in a first database [data definition information, 0005] and wherein second item types are not input data [data used back into the speculation models and not user data, 0036]; inputting said input data into the system [input speculated data into list, 0022];

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automatically searching, using a processor for the computer system, the input data for at least one first item type [extraction based on characteristic information, 0023];

automatically storing, using the processor, data associated with said at least one first item type found by the searching step, in the first database [loads and generates multi-dimensional database, 0023],

automatically performing an iterative determining process, using the processor, for determining whether the first database includes one or more prerequisite items necessary to determine each of a number of putative second item types [speculation model automatically generated by unit from customer data and speculation data, 0036], the iterative determining process comprising performing a plurality of iterations, wherein:

(a) each iteration of the determining process comprises successively automatically reading putative second item types and, for each read putative second item type, determining whether the first database includes one or more prerequisite items, in the form of first item types and/or second item types, necessary to determine that putative second item type, and if the first database does include said one or more prerequisite items sufficient to determine said second item type, automatically storing that second item type in the first database [speculation model and data used to generate speculation results, 0036], such that said second item type can be available as a potential prerequisite item for other second item types in subsequent iterations [item from data list used for future speculation iterations, 0036];

(b) wherein the iterative determining process is terminated by a termination step under the condition that an iteration of the determination process does not result in storage in the first database of a second item type which was not stored in the first database in a

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previous iteration of the determining process [only stored before user selects speculation model, 0036];

(c) wherein the iterative determining process performs repeated iterations according to step (a) indefinitely until the terminating condition of step (b) is met, each of the second and subsequent iterations assessing putative second item types which were assessed in one or more previous iterations as being unable to be determined due to lack of at least one prerequisite item, and re-assessing those putative second item types taking into account the second item types automatically stored into the first database by previous iterations [speculation segment reiterated to reach a collection of speculation models, 0034]; wherein, at the termination of the iterative determining process, the storage of an item type in the first database is an indication that the stored item type may usefully be included in a spreadsheet in accordance with the spreadsheet system model [formats available from speculation model result, 0034]; and automatically outputting, using the processor, an indication that the spreadsheet system model can be produced if items of the model specification are stored into the first database [predetermined number of speculation models generated after determination by speculation unit, storing the speculation models and outputting them, 0036].

For claim 4, Ashida et al. teaches:

The method as claimed in claim 1 wherein in the iterative determining process successively automatically reading said second item types [speculation model selects one record at a time, 0034 and Figure 11] comprises successively automatically reading

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only second item types not stored in the first database [store speculation data before user read, 0036].

For claim 8, Ashida et al. teaches:

The method as claimed in claim 1 wherein said at least one first item type and said at least two second item types [speculation data lists, 0021] further comprise predetermined items; and, said method further comprising: the system producing an output indication if said predetermined items are stored in the first database [column data indicator, 0023].

For claim 15, Ashida et al. teaches:

The method as claimed in claim 1 wherein the second item types have corresponding item determinants [set of rules for second item, 0024].

For claim 16, Ashida et al. teaches:

The method as claimed in claim 1 wherein said at least one first item type and said at least two second item types [speculation data lists, 0021] further comprise non-input items and the second item types are said non-input items [customer data and speculation model non-inputted, 0021].

For claim 17, Ashida et al. teaches:

The method as claimed in claim 15 further comprising. the step of adding a second item type from said at least two second item type to the first database if the associated item determinant evaluates to true [generation of speculation results when rules in model hold true, 0036].

For claim 18, Ashida et al. teaches:

The method as claimed in claim 17 further comprising the step of providing a

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consolidated storage array for storing items of the second type and for evaluating said item determinants [multi-dimensional database for storage, 0022].

For claim 19, Ashida et al. teaches:

The method as claimed in claim 18 further comprising the step of evaluating the item determinant for each said second item type not stored in the first database [evaluation of all item determinant data, even the ones to not be stored, 0036].

For claim 20, Ashida et al. teaches:

The method as claimed in claim 19 further comprising the step of storing in the first database each said second item type for which the item determinant is true [storing the speculation data for determinant items that held true, 0036].

For claim 21, Ashida et al. teaches:

The method as claimed in claim 20 further comprising the step of storing said second item types in a second database if their associated prerequisite items for said second item types are not located in the first database [multi-dimensional database generated based on conditions, 0022].

For claim 22, Ashida et al. teaches:

The method as claimed in claim 21 further comprising the step of repeating the evaluating step for any said second item type in the second database [evaluation for dimensioning, 0022].

For claim 23, Ashida et al. teaches:

The method as claimed in claim 22 further comprising the storage step of storing the first database each said second item type stored in the second database [one

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record at a time repeated, 0034] for which the item determinant is evaluated as true by the repeated evaluation step.

For claim 24, Ashida et al. teaches:

The method as claimed in claim 23 wherein the evaluating and storing steps are repeated until the storage step results in no additional said second item types being added to the first database [each record selected from customer list, 0034].

For claim 25, Ashida et al. teaches:

The method as claimed in claim 23 further comprising repeating the evaluating and storing steps until all said evaluated item determinants are false [user selected conditions for evaluation, 0022].

For claim 33, Ashida et al. teaches:

The method as claimed in claim 1, wherein the computer system determines which second item types to read by determining which second item types could exist, based on data in the first database [speculation model generation unit from selected segment, 0036].

For claim 34, Ashida et al. teaches:

The method as claimed in claim 1, wherein the spreadsheet model specification includes said at least two second item types by at least one of: listing a plurality of second item types; or, defining one or more classes of the second item type, from which a number of unambiguously identifiable second item types can be determined [speculation list based on condition, 0005].

For claim 35, Ashida et al. teaches:

The method as claimed in claim 1 further comprising a step of automatically outputting a list of the first and second item types stored in the first database which can be usefully included in a spreadsheet in accordance with the spreadsheet system model [speculation model output from aggregation, 0036].

For claim 36, Ashida et al. teaches:

The method according to claim 18 wherein one or more iterations of the iterative determining process comprises generating one or more putative second item types for subsequent reading and assessment [customer data used in iterative speculation steps, 0036].

For claim 37, Ashida et al. teaches:

The method according to claim 1 wherein at least one putative second item type is provided which can be assessed as being able to be determined only if: the first database includes one or more prerequisite items necessary to determine said second item type; and the first database does not include one or more other specific first or second item types, not being prerequisite items of said putative second item type [customer data necessary to reach speculation model, 0036].

For claim 38, Ashida et al. teaches:

A computer implemented method for processing data for a spreadsheet system model, including the steps of:
providing a spreadsheet model specification in a computer system, the spreadsheet model specification including a plurality of types of item, in respect of which entries may potentially be provided in a spreadsheet to which the

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spreadsheet system model relates [analytical database management with data, 0005], the types of item including: at least one first item type wherein first-item associated data is input data input into the computer system [customer data, 0005]; and at least one putative second item type wherein second-item associated data can be obtained from an operation performed on stored data [speculation list, 0005], associated with at least one of said first or second item types, stored in a first database, and wherein second item types are not input data [data used back into the speculation models and not user data, 0036]; automatically searching, using a processor for the computer system, the input data for at least one first item type [extraction based on characteristic information, 0023]; automatically storing data associated with said at least one first item type found by the searching step, in the first database [loads and generates multi-dimensional database, 0023], automatically performing an iterative determining process, using the processor, for determining whether the first database includes one or more prerequisite items necessary to determine each of a number of putative second item types [speculation model automatically generated by unit from customer data and speculation data, 0036], the iterative determining process comprising performing a plurality of iterations, wherein:

(a) each iteration of the determining process comprises successively automatically reading putative second item types; associating each respective second item type with an item determinant which specifies the or each

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prerequisite item for evaluation of said respective second item type; searching the first database for the or each prerequisite item for each respective second item type; applying a Boolean operation which produces a true or false result depending on whether the or each prerequisite item is located in the first database; and storing in the first database each second item type for which the item determinant is true [characteristic rules determining based on customer data, 0022]; and

(b) the iterative determining process performs repeated iterations according to step (a) indefinitely until an iteration evaluates the determinants of all second item types not stored in the first database as false, wherein, at the termination of the iterative determining process, the storage of an item type in the first database is an indication that the stored item type may usefully be included in a spreadsheet in accordance with the spreadsheet system model [speculation calculation done to get model, 0036]; and automatically outputting, using the processor, an indication that the spreadsheet system model can be produced if items of the model specification are stored into the first database [results generated and presented, 0036].

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 5-7 and 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashida et al. as set forth above against claim 1 above, and in view of Mehr et al. (US 6,438,547 B1).

As per claim 1, Ashida et al. teaches the input of first item [customer data, 0005], creation and storage of second item [speculation data list, 0005] produced from operation performed between first item and stored third item database [data definition information, 0005] and outputting indication of first item model production [predetermined number of speculation models generated after determination by speculation unit, 0036], characteristic rules [0005, claim 6], multi-dimensional database for storage [0022, claim 12] determining a step of true if prerequisite satisfied [0024, claim 13] and data definition information inputted [0021, claim 14], but does not teach the sorting of data item [claim 5 and 7], storing second type based on prerequisites [claim 9], searching database [claim 10] and Boolean operation [claim 11].

Mehr et al. teaches the sorting of data items [column 12, lines 55-67 – column 13, 1-7], storing manipulated data in database, column 5, lines 11-30], searching database for manipulated data [column 6, lines 57-67 – column 7, lines 1-2] and Boolean values from calculations [column 13, lines 29-46].

Ashida et al. (US 2002/0091908 A1) and Mehr et al. (US 6,438,547 B1) are analogous art because they are from the same field of endeavor of database management.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify processing of data described by Ashida et al. and add storing, searching and Boolean operation as taught by Mehr et al.

The motivation for doing so would be to easily manage information related to products [column 1, lines 16-30].

Therefore, it would have been obvious to combine Ashida et al. (US 2002/0091908 A1) with Mehr et al. (US 6,438,547 B1) for providing more options for the speculated data.

5. Claims 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashida et al. as set forth above against claim 1 above, and in view of Helgeson et al. (US 2002/0049749 A1).

As per claim 1, Ashida et al. teaches the input of first item [customer data, 0005], creation and storage of second item [speculation data list, 0005] produced from operation performed between first item and stored third item database [data definition information, 0005] and outputting indication of first item model production [predetermined number of speculation models generated after determination by speculation unit, 0036], conditional formulas for storing in database [0027, claim 30] and comparing all first and second items [0027, claim 31] but does not teach an array of instances, storing and retrieving second item and management of second item in database.

Helgeson et al. teaches an array for instances [0419], second database for storing and retrieving of second item [0017] and removal and management of item based on relationship [0366].

Ashida et al. (US 2002/0091908 A1) and Helgeson et al. (US 2002/0049749 A1) are analogous art because they are from the same field of endeavor of database management.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify processing of data described by Ashida et al. and add storing and retrieval and removal based on relationships as taught by Helgeson et al.

The motivation for doing so would be to house applications in diverse locations [0009].

Therefore, it would have been obvious to combine Ashida et al. (US 2002/0091908 A1) with Helgeson et al. (US 2002/0049749 A1) for providing more options for the speculated data.

Response to Arguments

6. Applicant's arguments filed December 28, 2009 have been fully considered but they are not persuasive. The examiner respectfully traverses applicant's argument.

Applicant argues that Ashida et al. (US 2002/0091908 A1) does not teach determining items and storing them into a database such that the storage of an item type in the first database is an indication that the stored item type may usefully be included in a spreadsheet in accordance with the spreadsheet system model. Reference clearly teaches a database management system with data and calculations [0005], thus teaching spreadsheet capability and teaches storage of the result data [0006]. Applicant maintains the argument that the automatic iterative storage process is not taught by the reference. Ashida et al. clearly teaches a unit to generate the model from the user data and a processing unit to output the result, which in turn teaches automation [0036]. The reference clearly teaches a non-linear step by using a selection segment to make iterative steps to come up with multiple speculation models [0034]. From the input data, the model uses characteristic rules and customer lists with

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speculation results to make iterative speculation model steps [0036]. The second item of results are clearly putative, since its used from the previous iteration of the speculation model aggregation.

In light of the forgoing arguments, the 35 U.S.C. 102 and 103 rejections are hereby sustained.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ajith Jacob whose telephone number is 571-270-1763. The examiner can normally be reached on M-F 7:30-5:00 EST, Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

3/13/2010

AJ
Patent Examiner

/Apu M Mofiz/

Supervisory Patent Examiner, Art Unit 2161